Our results and those of Mackeith certainly warrant a more extensive trial of this form of therapy.

As intimated before, our main object has been to point out and insist upon the relation that exists between the disease ozena and tuberculosis.

We offer as evidence from our own and cases collected from the literature:

28 cases that have come to autopsy, tuberculosis was found in 20 and was the cause of death in 15 of these.

129 cases in which a family history of tuberculosis was demonstrated in 73.

126 cases in which definite clinical tuberculosis was found in 52.

It is true our laboratory tests argue against any etiological identity. On the other hand the clinical evidence cannot be dismissed as falling within the realm of coincidence. The question of the etiology of ozena has yet to be settled. That the disease is very frequently associated with tuberculosis is a fact—a fact that it behooves every practising physician to bear in mind and one that should cause him to investigate every case of ozena coming under his notice as a possible instance of tuberculosis.

DIABETES MELLITUS, SYPHILIS AND THE NEGRO.

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In view of Warthin's report that he has found syphilitic pancreatitis in all of the diabetic cases at the University of Michigan coming to autopsy, it has seemed worth while to examine from this point of view a material rich in syphilis. Warthin's[1] statement is "that diabetes may be associated with the more marked degrees of syphilitic pancreatitis, and in our autopsy series all of our diabetic cases have been so associated, but that a number of syphilitic pancreatitis of similar degree of severity have not presented the clinical symptoms of diabetes. It seems very probable, therefore, that latent syphilis is the chief factor in the forms of pancreatitis most frequently associated with diabetes, but that diabetes is not always associated with severe degrees of this type of pancreatitis." Since this report was made there has been very little discussion of the matter in the literature, though Warthin's contention has not gone altogether unchallenged. Thus, J. R. Williams[2] reported that only 4 out of 143 cases of diabetes mellitus gave a positive Wassermann and the physical examination of 126 out of the total 143 patients did not lend support to the view that syphilis is a common causal factor in diabetes. Jacob Rosenbloom[3] reported that in 62 cases of diabetes he found positive evidence (including positive Wassermanns) in 7, or only 10.3 per cent. Five of the 7 patients were persuaded to take syphilitic treatment. There was no increase in the carbohydrate tolerance in any of these cases after treatment. Anna I. Van Saun[4] investigated the blood from 72 known diabetics. Only 1 gave a positive Wassermann reaction; 52 gave a negative reaction, 2 a doubtful reaction and in 19 cases the controls failed to hemolyze, so that no readings could be made. The one serum giving a positive reaction was that of a patient giving a history of syphilis. Of the 2 doubtful reactions 1 was a patient with a history of chancre twenty-six years previously; the other patient gave no history of syphilis.

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[1] Am. Jour. Med. Sc., 1916, clii, 157.

[2] Jour. Am. Med. Assn., 1918, lxx, 365.

My own experience in private practice has given me the same impression that syphilis is seldom the cause of diabetes mellitus. In such cases where lues does certainly exist we must consider whether it is present simply as a concomitant affection or as the real cause of the diabetes. Only once in my series did antisyphilitic treatment have any effect upon the carbohydrate tolerance, which is in agreement with the experience of Rosenbloom already quoted. It is perfectly apparent that a diabetic may have or may acquire syphilis just as he may acquire tuberculosis or typhoid fever, but that is quite different from the situation of the syphilitic who because of his syphilitic pancreatitis presents the phenomena of diabetes mellitus. It is not denied that syphilitic pancreatitis may present the clinical picture of diabetes mellitus; but my present thesis is that such cases represent the exception and not the great body of diabetic patients. It is in support of this contention that the results of this statistical study are presented.

The syphilization of the negro is a matter of common knowledge to all practitioners in the South. They present a material enormously rich in every aspect of the disease, because, owing to their ignorance and poverty, they go frequently untreated or inadequately treated. They are more liable even than other patients to disappear from view when their immediate pressing symptoms have been relieved to reappear when the disease has later made vast inroads. If therefore syphilitic pancreatitis is the common cause of diabetes mellitus we should find the latter disease more prevalent among them than among the whites. This, however, is not the case. Indeed, it was formerly thought that diabetes mellitus was relatively rare in the negro. While this disease is not rare in the negro, still the incidence is not as great among them as among the whites. This I showed ten years ago from a study of the reports of the

[3] Jour. Am. Med. Assn., 1917, lxviii, 1232.

[4] Jour. Med. Research, 1917, xxxvii, 205.

Charity Hospital at New Orleans covering twelve years (1898–1909). There were 45 white diabetics and 19 negro diabetics in 61,298 admissions. The negroes furnished 40 per cent. of the admissions and only 30 per cent. of the diabetics. The total incidence was 0.63 per thousand. The incidence among the whites was 0.72 per thousand while among the negroes it was only 0.47 per thousand.

TABLE I.—DIABETES MELLITUS IN CHARITY HOSPITAL, 1898–1909.

Year.	White cases.	Negro cases.	White admissions.	Negro admissions.	Total. admitted.
1898	2	5	4,738	2,996	7,734
1899	5	0	5,008	3,412	8,480
1900	4	0	4,614	3,114	7,728
1901	7	3	4,657	3,068	7,725
1902	7	2	4,928	3,248	8,176
1903	6	3	4,767	3,434	8,201
1904	2	0	5,300	3,299	8,689
1905	2	1	5,091	3,221	8,412
1906	1	0	5,027	3,425	8,452
1907	4	3	5,294	3,556	8,950
1908	3	2	5,874	3,666	9,540
1909	2	2	5,850	3,726	9,576
	45	19	61,298	40,265	101,565

0.72 per 1000. 0.47 per 1000. White and negro, 0.63 per 1000.
Percentage of diabetics: White, 70 per cent.; negro, 30 per cent.
Percentage of admissions: White, 60 per cent.; negro, 40 per cent.

A review of the figures for the years 1910–1919 confirms the impression obtained for the earlier period in a remarkably accurate way. In 160,044 admissions there were 135 white diabetics and 59 negro diabetics. The negroes furnished 43 per cent. of the admissions and only 30 per cent. of the diabetics, practically the same relation as in the former period.

TABLE II.—DIABETES MELLITUS IN CHARITY HOSPITAL, 1910–1919.

Year.	White cases.	Negro cases.	White admissions.	Negro. admissions.	Total admitted.
1910	11	0	6,719	4,594	11,313
1911	20	7	7,314	4,906	12,220
1912	15	5	7,838	5,145	12,983
1913	5	3	8,405	5,944	14,349
1914	19	9	9,700	7,042	16,742
1915	8	7	9,897	7,926	17,823
1916	21	11	10,111	8,540	18,651
1917	13	9	10,908	8,686	19,651
1918	15	4	11,359	7,862	19,221
1919	8	4	9,789	7,359	17,148
	135	59	92,040	68,004	160,044

1.4 per 1000. 0.86 per 1000. White and negro, 1.2 per 1000.
Percentage of diabetics: White, 70 per cent.; negro, 30 per cent.
Percentage of admissions: White, 57 per cent.; negro, 43 per cent.

TABLE III.—INCREASE IN DIABETES MELLITUS AT CHARITY HOSPITAL.

0.63 per M.	Total incidence,	1898–1909		
90 per cent. increase 1.20 “	“	“	1910–1919	
0.72 “	White	“	1898–1909	
94 per cent. increase 1.40 “	“	“	1910–1919	
0.46 “	Negro	“	1898–1909	
83 per cent. increase 0.83 “	“	“	1910–1919	

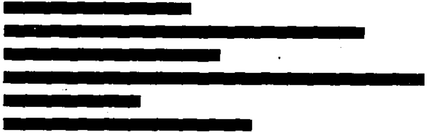
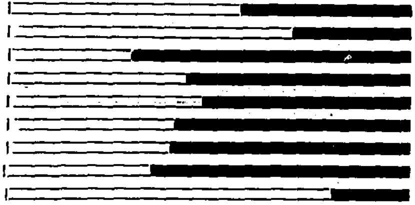


TABLE IV.—CHARITY HOSPITAL, 1910-1919.



Admissions	92,040	whites;	57	per cent.	68,004	negroes;	43	per cent.
Diabetes	135	“	70	“	59	“	30	“
Aneurysm of aorta . .	107	“	30	“	244	“	70	“
Acquired syphilis . .	2,785	“	44	“	3,484	“	56	“
Congenital syphilis . .	175	“	48	“	183	“	52	“
Gumma of brain . .	82	“	41	“	115	“	59	“
Gumma of liver . . .	11	“	40	“	16	“	60	“
Syphilitic iritis . . .	50	“	35	“	93	“	65	“
Locomotor ataxia . .	129	“	80	“	31	“	20	“

A striking fact is well illustrated in Table III. The incidence of diabetes mellitus has risen here as it has elsewhere, as has been reported by Joslin and others. The burden of the increase has been borne fairly equally by the whites and the negroes, and whatever cause is operating to produce this increase has affected both races alike. The total incidence has risen from 0.63 per thousand to 1.2 per thousand (90 per cent.); the white incidence from 0.72 per thousand to 1.4 per thousand (94 per cent.) and the negro incidence from 0.47 to 0.86 per thousand (83 per cent.). It can hardly be fairly contended that syphilis has been a more potent factor in the production of diabetes in the last decennium than in the preceding one. Moreover if it were, the heavier burden should have fallen upon the more intensely syphilized race. Since it fell upon both races approximately alike, it would be most plausible to seek the explanation in some factor affecting both alike and operating in increasing intensity. Syphilis hardly complies with these conditions.

That it does not comply with these conditions may be made evident from a study of the ravages produced by syphilis in other parts of the body in the white and negro respectively. Although the negroes form about 40 per cent. of the admissions to our hospital and furnish only 30 per cent. of the diabetics, they furnish more than 50 per cent. of all the syphilitic diseases. This I have tried to show graphically in Table IV.

The only exception to the rule that the negro furnishes more than his relative share of any syphilitic disease is locomotor ataxia. Dr. R. M. Van Wart (personal communication) informs me that this is in accordance with his clinical experience and that of other neurologists of the South. While the negro by no means shows even a relative immunity to luetic infection of the central nervous system, still he does show a relative decreased incidence of locomotor ataxia. It would appear, therefore, that we must accept one of two explanations of the smaller incidence of diabetes among the negroes and its possible relation to the theory of syphilitic pancreatitis as a common cause of diabetes mellitus:

1. There is no relation between the incidence of diabetes mellitus and syphilis; hence there is no probable etiologic relation between the two.
2. There is an unexplained immunity of the negro race to the production of spirochetal pancreatitis just as there is an unexplained immunity of the race to the production of locomotor ataxia.

I am convinced of the validity of the former alternative for the reasons set forth in this communication. The assumption of the second alternative would leave unexplained the increased incidence of diabetes mellitus in both whites and negroes and the fact that this incidence has increased equally in both races.